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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,660	09/19/2001	Steven M. Meehleder	CRC-128	1159

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SQUARE D COMPANY  
INTELLECTUAL PROPERTY DEPARTMENT  
1415 SOUTH ROSELLE ROAD  
PALATINE, IL 60067

EXAMINER

LUK, LAWRENCE W

ART UNIT PAPER NUMBER

2838

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/955,660

Applicant(s)

MEEHLEDER ET AL.

Examiner

Lawrence Luk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 6-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Chapman et al. (5,947,753).

In regard to claims 1 and 15, Chapman et al. discloses the elements and method as claimed. Specifically, Chapman et al. shows a housing formed of heat conductive material; an electrical apparatus positioned within said housing; and a flexible printed circuit board attached to at least a portion of the exterior of said housing, said board having a circuit printed thereon, and further having at least one heat generating electrical component mounted on the outside surface thereof, whereby heat generated upon operation of said electrical component is transferred to said housing and dissipated therefrom into the surroundings (refer to Fig.2 & 5 col.5, lines 41-67).

In regard to claims 2 and 16, Chapman et al. shows the housing has a plurality of exterior surfaces and in which said flexible circuit board is adhered to at least some of said plurality of exterior surfaces (refer to col.6, lines 30-36).

In regard to claims 3 and 4, Chapman et al. shows said electrical apparatus is an electro-mechanical device, in which said printed circuit and said at least one electrical component comprise a control system for said electro-mechanical device (refer to Fig.2 ).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman et al. (5,947,753) in combination with Horikawa (5,837,950).

In regard to claim 5, Chapman et al. discloses the elements as claimed, except for an electro mechanical device is a circuit breaker.

Horikawa shows an electro mechanical device is a circuit breaker. (refer to Fig.1).

It would have been obvious to person having ordinary skill in the art at the time of the invention made to modify the device of Chapman et al. to include an electro mechanical device is a circuit breaker as taught by Horikawa for the purpose of easy to inserted and pulled out.

***Allowable Subject Matter***

5. Claims 6-14 are objected to as being dependent upon a rejected base claim. The prior art of record fails to teach or reasonably suggest that: Claims 6-11, an electro-mechanical device is a motor, a relay, a rheostat, a solenoid, an actuator, a position sensor. Claim 12, said printed circuit and said at least one electrical component comprises a system for receiving and processing signals from said electro-mechanical device. Claim 13, the partial circuit and said at

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least one electrical component further comprise a system for sending a control signal to said electro-mechanical device in response to a signal received from said electro-mechanical device. Claim 14, the printed circuit and said at least one electrical component further comprise means for transmitting processed signals to a location outside said electrical device. Claims 6-14 would be allowable if rewritten in independent from including all of the limitations of the base claim.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Luk whose telephone number is (703)305-0617. The examiner can normally be reached on 7 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (703) 308-1680. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-7724 for regular communications and (703)305-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.

LWL  
June 4 , 2003

*Lawrence Luk*  
*examiner*  
*6/4/03*